

Claims

[c1] What is claimed is:

1. A single stage kinetic energy warhead utilizing a barrier-breaching projectile followed by a target-defeating explosively formed projectile, the warhead comprising:
 - a housing having an inner surface;
 - an explosive charge disposed within the housing;
 - a first liner that is placed against the explosive charge within the housing;
 - a plastic insert that is placed against the first liner;
 - a second liner that is placed against the plastic insert;
 - wherein the first liner is generally concave shaped
 - wherein the second liner is generally flat;
 - wherein the plastic insert spaces the second liner from the first liner;
 - wherein when the second liner is expelled from the housing ahead of the first liner, the second liner forms a plate shaped projectile;
 - wherein when the first liner is expelled from the housing, the first liner is deformed into a convex shaped projectile;
 - wherein the plate shaped projectile clears a path through a barrier that protects a target, for the convex shaped

projectile to impact the target unimpeded; and
wherein the explosive charge uses a single detonator to
produce two sequential projectiles.

- [c2] 2. The single stage kinetic energy warhead of claim 1,
wherein the first liner comprises a first peripheral rim;
wherein the second liner comprises a second peripheral
rim; and
wherein the first and second peripheral rims abut against
an inner surface of the housing.
- [c3] 3. The single stage kinetic energy warhead of claim 1,
wherein the plastic insert comprises a foam material.
- [c4] 4. The single stage kinetic energy warhead of claim 1,
further comprising a detonator assembly that initiates
the explosive charge.
- [c5] 5. The single stage kinetic energy warhead of claim 1,
further comprising a back plate.
- [c6] 6. The single stage kinetic energy warhead of claim 1,
wherein the first liner and the second liner are coaxially
aligned so that the first liner and the second liner follow
substantially a similar flight trajectory when the first
liner and the second liner are expelled from the housing.
- [c7] 7. The single stage kinetic energy warhead of claim 3,

wherein the plurality of first liners and the second liner are coaxially aligned so that the plurality of first liners and the second liner follow substantially a similar flight trajectory when the plurality of first liners and the second liner are expelled from the housing.